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REASONABLE RAILWAY MAIL PAY.

IN a previous article on railway mail compensation I intimated that at a later time I hoped to discuss what may be considered "fair" pay for the transportation of mail. As an elaborate discussion of this question has just been submitted to the postal commission by Professor Henry C. Adams I shall forego an extended statement of my own ideas and content myself with a review of his testimony.¹

I.

Before stating the fundamental principles which should govern rate making Professor Adams thought it necessary to clear the field of certain preconceptions on this subject that seem to have become firmly rooted in the minds of many witnesses and of several of the members of the commission. With but few exceptions the witnesses who appeared before the commission based their judgment of the reasonableness of the mail pay on the cost of rendering the service. One representative of the railroads after another contended that the present compensation is not excessive, because it costs nearly as much to carry the mail as the railroads receive from the government for performing the service. The line of argument, adopted by the railroads, is difficult of explanation, for the accounting officers of the railways have more than once placed themselves on record that it is impossible to separate accurately even passenger train from freight train expenditures and consequently they would concede that an attempt further to distribute the cost of running passenger trains to mail, express, and passengers would be even more unsatisfactory. Perhaps the men who represented the railroads before the commission were not familiar with railway accounting. But it also occurred to me, as I read the testimony, that the railway men may have attempted to justify the compensation they received on the basis of cost of service because they felt that this was the line of argument the majority of the commission wanted. And whatever may be said of their attempts from a theoretical standpoint all will have to admit that the arguments, based on the cost of

¹ Professor Adams's testimony may be found in the *Report of the Joint Congressional Commission on Postal Affairs*. This report has not yet appeared in its final form, so the page cannot be cited.

service, were the ones that found favor with the commission. Indeed some members of the commission found it difficult to give a respectful hearing to those who were not prepared to state just how much it cost to haul a ton of mail a mile.

While admitting, that the simplicity of the rule that rates should approximate the cost of service makes it attractive, Professor Adams declared that he could not accept the doctrine that reasonable rates must approximate the cost of service because, (1) it is impossible to ascertain the cost of service with sufficient accuracy for this purpose, and (2) because the railways do not attempt to adjust the rate on any commodity to the cost of moving that particular commodity.¹ His explanation of why it is impossible to find out how much it costs to perform a certain service is very convincing.

After having disposed in this summary way of the arguments based on the cost of service Professor Adams, for the time being, passes over the statements of the railroad men whose arguments are based on comparisons,² and presents his "fundamental principles relative to railway mail compensation." He says, quoting his words as far as possible, that the points which will be submitted in connection with a consideration of the fundamental principles relative to railway mail pay are (1) that European experience relative to railway mail transportation is not pertinent to the United States, (2) that the problem of railway mail pay must be approached as one of compensation, that word being given its regular interpretation, (3) that in view of the nature and history of the postal service the claim of public utility in determining what is reasonable compensation cannot be ignored, and (4) that the possibility of introducing economies into the business of transportation, depends upon the increase in the volume of traffic, from which, in the absence of countervailing considerations, it follows that a form of traffic which increases most rapidly through a series of years should show a relatively more rapid decrease in charges [charges] as compared with other traffic.

II.

Now let us examine these fundamental principles. Professor Adams says in explanation of the first one that "Very little can be

¹ *Testimony taken by the Joint Congressional Commission on Postal Affairs in the winter of 1899*, pp. 4-7.

² Most of the railroad men compared their earnings from mail with those from express. This was the favorite comparison, it being held that the two services were similar in many respects.

gained from European experience respecting the questions of compensation to railways for transporting mail on account of the fact that, for one reason or another, European governments are interested in the financial success of the railways. Where the railways are the property of the government, as in Prussia, every item of railway expenditure appears as an appropriation in the budget of the state, and it is merely a matter of accounting, so far as the people who pay taxes and railway charges are concerned, whether the railways transport the mail for nothing, and thus enable the post-office department to show a surplus, or whether the post-office department is charged an arbitrary rate for carrying the mail, which would enable the railway department to increase the surplus by that amount.¹

If by European experience Professor Adams means simply continental practice no one, I believe, will be disposed to find fault with his contentions. But, popularly at least, Great Britain forms a part of Europe and, therefore, Professor Adams should not have directed his investigation simply to the continent of Europe. In Great Britain the relations of the post-office department and the railroads are very much the same as in this country. In both countries there is private ownership of railways. And further, our principles of jurisprudence do not depart greatly from those of English jurisprudence. Because of these considerations it seems to me especial attention should have been directed to the manner in which the British government deals with the railways. And failing to find in Great Britain sufficient confirmation that the payments of our government are either too high or too low Professor Adams could much more profitably have turned his attention to Canada than to the continent of Europe. Having thus neglected the practice of those countries whose national and industrial life are adjusted to the same principles as our own, I cannot regard Professor Adams's treatment of his first point as satisfactory.

Although not much can be learned from British practice as to what constitutes reasonable compensation in dollars and cents, a great deal can be learned as to what is a fair method of ascertaining that to which the railways are entitled. In this country the schedule of pay is fixed arbitrarily by act of Congress. I say arbitrarily because the railways have no direct voice in determining the payments. In Great Britain on the contrary, they participate in fixing the payments, for any company which does not regard the payments awarded by the

¹ *Ibid.*, p. 7.

postmaster-general as adequate, can call arbitrators. The nineteenth section of the Act of 1838 reads :

Every railway company shall be entitled to reasonable remuneration for any services performed by them in pursuance of this act with respect to the conveyance of mails, and such remuneration shall be paid by the postmaster-general. And any differences between the postmaster-general and any railway company as to the amount of such remuneration, or as to any other question arising under this act, shall be decided by arbitration¹ in the manner provided by the act of the session of the first and second years of the reign of her present majesty, chapter xcvi, or, at the option of such railway company, by the [railway] commissioners.²

In regard to specific information as to what is regarded as fair pay for conveying the mail but little information is obtainable, for in Great Britain the postmaster-general does not make public the contracts he enters upon with each of the railways. During the summer of 1898, the second-assistant postmaster-general, W. S. Shallenberger, was sent abroad by Postmaster-General Charles Emory Smith to make a careful investigation into the character and cost of railway mail transportation. In reporting to the postmaster-general what he learned in Great Britain, Mr. Shallenberger says :

"In reply to a question as to what was regarded a reasonable compensation for a mail train, I was told that it must not in any event exceed the revenue derived by the railway company from an average passenger train of like size. . . . One of the contracts that I was permitted to see provided that the postmaster-general and his officers may require the company to provide and run any express or special trains for the conveyance of mails, etc., for a payment at the rate of 3s. 6d. for each and every mile such express or special *train* shall travel. This would be at the rate of 85 cents per running mile. In the testimony given by this office before the subcommittee of the Senate Committee on Appropriations, in May last, the cost per running mile of one of our full railway post-office *cars* including transportation pay, was estimated at 25½ cents. Considering the small size and light weight of the cars on English roads, it is perhaps fair to assume that three of our full [sized] railway post-office cars would equal the average special train provided for in the contract which I have named.³

¹ In case the postmaster-general and a railway company cannot agree as to what is fair compensation they may refer the matter to the award of two persons, one to be named by the postmaster-general and the other by the company, and if these two persons cannot agree, then to a third person, to be appointed by the first two previously to their entering upon the inquiry.

² *Report of Postmaster-General, 1898*, p. 318.

³ *Ibid.*, p. 320. The italics are mine.

If the terms of the contract just cited are typical, it appears that the compensation given the railroads in Great Britain for running special mail trains is somewhat higher than it is here. In comparing payments it must also be held in mind that in Great Britain the conditions of the service are not so onerous as here. In Great Britain the post-office department erects and maintains at its own expense all mail cranes and catchers, the railways are also relieved from conveying the mails to and from the post offices, and when railway post-office clerks are injured in railway accidents, and judgment is obtained against the company, the post-office department is liable at least for one half the damage, and finally, but most important of all, the railways are not expected to run their mail trains at a higher rate of speed than their best passenger trains maintain.¹

In Canada, as in Great Britain, the railways are not paid on the basis of the average weight carried, so no direct comparisons on the basis of weight can be made with our payments. From information collected in the autumn of 1898 for the postal commission by Mr. V. J. Bradley, superintendent of the railway mail service of the New York post office, it appears that the cost per mile of railway mail transportation in Canada, regardless of facilities furnished or weight carried, was 8.9 cents.² In the United States for the fiscal year 1898 it was 10.93 cents.³ Although on its face this comparison seems unfavorable to our railways, it is in reality very favorable. This is true for several reasons. In the first place Mr. Bradley, in ascertaining the average amount paid in Canada per mile for railway mail transportation, did not include the payment of about \$650,000 to the Canadian Pacific by the imperial government for the overland transmission of mail to the Pacific.⁴ In the second place, the average weight of mail carried in Canada is insignificant in comparison with the average weight transported here. In this country most of the railways radiating from the large cities run fast mail trains, exclusively devoted to mail, while in Canada there are no fast mail trains, and in fact there is but a single route on which full railway post-office cars are

¹ *Ibid.*, p. 319.

² *Testimony taken by the Joint Congressional Commission on Postal Affairs in summer and autumn of 1898*, p. 729.

³ *Report of the Postmaster-General*, 1898, p. 301.

⁴ *Testimony*, etc., 1898, p. 728.

run.¹ It thus appears that for baggage and apartment car service the railways of Canada receive almost as much per mile as our railways receive for service that consists largely of full sized post-office cars and full trains. In Canada the conditions under which the railways transport the mail are not so burdensome as in this country. There, as a general rule, the side and terminal messenger service is performed by the post-office department at its own expense. In case the railroads perform this service they generally receive extra compensation for doing it. In Canada the railways are also almost wholly relieved from the portage of the mails at the stations. The railways render some assistance, but about 90 per cent. of this work is done by postal employees. At stations where transfer agents are assigned by the post-office department they do not merely supervise the transfers, as in this country, but lug the mail as well.²

III.

Now let us pass on to Professor Adams's second fundamental principle for determining what is fair pay for transporting the mail. In his testimony before the postal commission he says:

The next point is that the problem of railway mail pay must be approached as one of compensation, that word being given its regular interpretation.

* * * * *

The service rendered by the railways in carrying the mail is of the same sort as that of carrying passengers, express, or freight. The fact that in the case of mail the government is the agency through which the service is rendered does not change the nature of the service. Such I understand to be the principle that must be recognized by your commission. This is implied in the Constitution itself, and has been expressed in many state decisions. Much testimony might be submitted to show that the above situation is correct, and that consequently the principle of compensation should be acknowledged in discussing the question of adequate pay. . . . In 1874 a select committee of the United States senate was appointed to inquire into "the nature and extent of the obligations subsisting between the railway companies and the postal service of the country." This committee came to the conclusion that the government can compel them [the railways] to transport the public mails, but that "reasonable and just compensation should be paid

¹ This is the Montreal-Toronto route, which is 333 miles in length. The cars on this route are forty feet in length, and there are two round trips made daily except Sunday, when a single round trip is made. To maintain this service seven cars are furnished, four in use and three in reserve.—*Ibid.*, p. 726.

² *Ibid.*, pp. 726, 727.

for such service." In this regard, as also in the case of condemnation of a railway which refuses to carry the mail, the argument of the committee proceeded upon the principle enunciated by the fifth section of the amendments to the Constitution, which reads: "Nor shall private property be taken for public use without just compensation." It seems evident, then, that the question of railway pay for postal service among peoples who enjoy English jurisprudence is a question of compensation, and that all those principles of law and political science that cluster about the word "compensation" are pertinent, to a greater or less degree, to the problem in hand.¹

Probably no one will be disposed to question Professor Adams's second fundamental principle, and probably there are but few who would dignify the simple contention "that the problem of railway mail pay must be approached as one of compensation," by calling it a fundamental principle. It seems to me Professor Adams might fairly have assumed that the members of the postal commission would freely grant that "the principle of compensation should be acknowledged in discussing the question of adequate pay," for compensation and adequate pay mean the same thing. All are agreed, I believe, that the railways should receive compensation or adequate pay for the services they render. From the questions put to the witnesses who appeared before it, it may be fairly inferred that the postal commission from the very beginning of its investigations granted the contention that Professor Adams labors to establish, for it began at once to search for information as to what is reasonable pay for carrying the mail.

IV.

The first two fundamental principles laid down by Professor Adams do not shed much light upon what is reasonable pay for transporting the mail. They in reality merely prepare the way for the introduction of the third and fourth principles which contain the meat of what Professor Adams has to say on what is reasonable compensation.

Passing from his second to his third principle, Professor Adams says:

The third point found under the general heading "Consideration of fundamental principles relative to railway mail compensation," is as follows: The commission cannot in view of the nature and history of the postal service, ignore the claim of public utility in determining reasonable compensation. . . . This consideration assists the solution of the problem in

¹ *Testimony, etc., 1899*, pp. 8 and 9.

three ways. First, it suggests the correct classification of the mail service among the several transportation services.

* * * * *

The railways undoubtedly have the right to insist, from their point of view, that the character of the facilities furnished for the mail service should be taken into account in fixing compensation, and the government is obliged to recognize this claim because they who invest in railway property are a part of the state whose private interests are included in the interests which the state must guard; but, on the other hand, the government has the right to insist that the transportation of mail is essential, not alone to the present advantage of the public, but to the healthful and permanent development of the state. It has the right openly, publicly, and without apology, to put in practice a rule acknowledged by railway management. A railway manager is willing, for example, to carry coal at a very low rate, even at the risk of incurring loss, because he knows that coal is potential industrial development and what he loses on the coal traffic becomes for him a gain on the transportation of high-class freight, the product of the mills and factories which the distribution of the coal renders possible.

* * * * *

This line of reasoning is, even in a higher degree, pertinent to the transmission of intelligence, because intelligence is an essential consideration for growth and development. As the distribution of coal, which is latent manufacturing power, is essential to the upbuilding of manufactories, so the diffusion of intelligence is a fundamental condition of all social and industrial evolution. The meaning of all this is evident. When the government, in considering the question of compensation for carrying mail, finds it necessary to classify the mail service in the general schedule of services rendered, it will, if it accept the principle of public utility as the ruling consideration, conclude that the transportation of mail should be classed among those services which minister to the development of the process of production rather than to the satisfaction of wants through the transportation of the products. From the social point of view there is a difference between the carrying of mail and the carrying of coal, and it is right that a schedule of rates conforming to the principle of public utility should recognize this difference. But of all things transported by rail intelligence is the most essential to social and economic advantage and therefore is in the highest degree amenable to the consideration of public utility.

* * * * *

This principle of public utility will, in the second place, be of assistance in bringing such action as the commission deems wise into harmony with the generally accepted rule relative to reasonable railway transportation.

Now the practical effect of that point of view, if conceded, would be, I think, to recognize that from the public point of view we have a right—the government has a right—to force the mail compensation rather low, provided it does not force it so low that the question of compensation ceases to be a question of compensation and becomes a question of taxation, and the most that statistics can do in this matter is to set up the broad mark between those two lines.

* * * * *

The private interest in railway charges is limited to the claim that the gross revenue of railways should be adequate to cover operating expenses, fixed charges, and a fair return to stockholders. But this amount having been guaranteed the manner in which this gross amount is to be collected from the shippers is a matter of public policy, and you can readily see how this view of the case clears the ground for such action relative to compensation for carrying the mail as may commend itself to Congress. The application of the principle of public utility classifies mail transportation with freight: it classifies it among the fundamental or social services of railways, and it justifies an unusually low rate upon mail transportation, provided this is essential to rendering the important service undertaken by the postal department, and provided that the railways are permitted to recoup themselves by higher rates from other relatively less important services.

* * * * *

The third scope of this principle of public utility is, that the combination of the idea of public utility with that of compensation emphasizes the distinction to be made later between the transmission of intelligence which is a primal postal function, and the transmission of merchandise or bulky literary products, which as a postal function is of comparatively recent development.¹

* * * * *

While I cannot agree with all that Professor Adams puts forth in his third fundamental principle, yet most of his statements may well be accepted. The cost of service theory of rate making is abandoned. And as would be expected, he assumes that it is impossible to pass upon the fairness of any railway charge independently of the other rates with which it forms a system. In other words he contends that the whole classification must be examined before it is possible to pass judgment upon any particular rate. He premises that a railway company is entitled to a fair return upon the value of its property. And that the problem to be solved is the proportion in which the different commodities transported by the railway shall be called upon to contribute to this end. Or in other language how are the services

¹ *Ibid.*, pp. 9-11.

rendered by the railways to be classified? He declares that the "social services" should be performed at unusually low rates. After stating his theory of rate making he says "The application of the principle of public utility classifies mail transportation with freight: it classifies it among the fundamental or social services of railways, and it justifies an unusually low rate upon mail transportation." From this statement it must be inferred that in Professor Adams's grouping of the services rendered by the railways there are some which are not social. At this point I depart from Professor Adams. All the services rendered by railways are social services.

It appears to me that Professor Adams's theory is also incomplete. As I have before stated I regard all the services performed by the railways as social services. And I would advance as a fundamental proposition that the rates on these services should be so adjusted as to make the railways promote the public welfare in the largest possible degree it being understood that railway investors are first of all entitled to a fair return upon their property. In the presentation of his fundamental principles Professor Adams takes, or at least appears to take, a one-sided view of the situation. In a certain sense he looks upon railway property and employees as outside of the social community but ministering to it. And consequently in rewarding the railways for services rendered, he says, society is to consider merely the importance of the service to itself and then fix the compensation on the basis that services of great social importance should be done at very low rates. This view appears to me to be unsatisfactory. Railway property and employees are a part of the community and, therefore, the cost of performing a service in labor and capital must also be considered. That is, society is interested in net results. To make my point clear let me illustrate. Suppose that at station A for productive purposes a ton of coal is equal to a cord of wood but that the cost in labor and capital of transporting a cord of wood from station B to station A is twice that of hauling a ton of coal.¹ Obviously it would be greatly to the interest of society as a whole for the people at station A to use coal and therefore a system of rates based solely on the utility of coal and wood to the people at station A would not result in the most effective use of the railroads to society as a whole. Professor Adams may reply to this argument that my theory is of no practical value because it is impossible

¹ It must not be supposed, that in practice it is possible to speak with this definiteness.

to ascertain the cost of moving different commodities. In answer to this contention I would say while it is freely admitted that it is impossible to accurately ascertain what it costs to render any particular service yet in most cases it is possible to estimate approximately what is the relative cost of transporting different commodities.¹ At least with accuracy enough to promote greatly the effective use of railways. This contention Professor Adams has, at least in a measure, admitted.

The ground upon which I differ from Professor Adams is also in part the ground upon which I differ from Mr. Cowles. In his *General Freight and Passenger Post* Mr. Cowles contends that distance should be disregarded in fixing freight and passenger rates. In my opinion it should not be, for if it were the railroads would not be used most effectively. My assertion is based upon the ground that while we may not be able to tell exactly how much more it costs to haul a ton of freight 110 miles than it does to haul it 100 miles yet we do know that under exactly similar conditions it costs some more, and that under the same conditions it costs much more to haul a ton of coal 1000 miles than 100 miles and that, therefore, a system of rates which makes it indifferent to a shipper whether he sends his products 100 or 1000 miles does not result in the greatest good to society.

It is one thing to enunciate a general principle, but it is quite another matter to apply this principle. Professor Adams declares that railway rates should conform to the principle of public utility, but makes no attempt to classify according to this principle even the most important of the many commodities carried by the railways. In one place he states that the practical effect of the adoption of his principle would be "to force the mail compensation *rather* low,"² and in another place he asserts with certain provisos that "the application of the principle of public utility justifies an *unusually low* rate on mail transportation."³ And in still another place he declares that "of all things transported by rail, intelligence is the most essential to social and economic advantage, and therefore is in the highest degree amenable to the consideration of public utility."⁴ This contention is

¹ I do not, however, hold that it is possible to estimate the cost of performing different services with sufficient accuracy to base a theory of rates on the cost of service even assuming that it is desirable to do this.

² *Testimony, etc.*, 1899, p. 10.

³ *Ibid.*, p. 11. The italics are in both cases mine.

⁴ *Ibid.*, p. 10.

a debatable one. First of all come the physiological wants of man, that is, his necessities as an animal. Food, raiment, and shelter, man must have. I am therefore inclined to rank freedom of personal movement higher than I am the rapid diffusion of intelligence, for the former, it seems to me, promotes the acquisition of these things more than the latter does. For instance, the ability to move from the unproductive lands of New England to the fertile lands of the central West has resulted in greater economic and social advantage to the country than any quantity of literature circulated in New England on the subject of improved farming could have brought about.

A full discussion of the construction of a schedule, based on the principle of public utility, will not be attempted here. But before leaving this point I would like to raise the question as to whether or not the thoroughgoing application of the principle of public utility to rate making would radically change existing railway tariffs. Very likely the framers of such a schedule of railway rates would quickly meet the difficulties encountered by legislators in drawing up tariff bills. They would probably early discover that in order to raise sufficient revenue to sustain the railways it would be necessary to rely very largely upon the commodities which are essential to social and economic well-being, just as legislators have found that if sufficient revenue is to be raised, the necessities of life must be the main reliance of governments. Just how much the public would profit by the systematic application of Professor Adams's third fundamental principle of rate making, can be estimated only after the most painstaking and exhaustive study of existing rate schedules, and such an examination has not yet been made.

Perhaps the application of the principle of public utility would not greatly alter existing railway tariffs, for another reason. The better class of railway managers now fully realize that their welfare is dependent upon that of the people whom they serve, and it may be that an examination of railway schedules would show that railway men in adjusting their rates have been guided, in some measure at least, by this principle. That such is the case is admitted by Professor Adams. Brick, stone, lumber, coal, coke, ores of the base metals, and food products consumed by the masses are carried at low rates. Luxuries, on the other hand, pay high rates. In other words, the articles consumed productively are favored by railway managers, while those consumed unproductively are discriminated against. This is in consonance with Professor Adams's principle of public utility.

Although the principle of public utility is applied to the movement of freight, it is applied much more thoroughly to the transportation of passengers. As rates are now adjusted very few railroads in the United States obtain any net returns from their passenger train service, and the great bulk of the railways would probably be better off if they altogether removed their passenger trains, provided their freight train earnings were not affected. During the year 1898 the average revenue per train mile earned by the passenger trains of the United States was \$.974, while the average revenue per train mile earned by the freight trains was \$1.731, and the average cost of running all trains per mile was \$.956.¹ While the cost of running freight and passenger trains, respectively, cannot be ascertained with exactness, it is generally estimated that it costs as much per mile to run passenger as freight trains. If this is true passenger trains contribute almost nothing to the fund for the payment of interest on bonds and dividends to stockholders.² As the passenger train mileage of all our railways does not fall far short of that of freight trains³ it is seen that the principle of public utility has already been widely applied in fixing railway charges. This follows because those services which in the largest measure promote social well-being, namely, the transportation of passengers and mail, are performed by the railways at less than cost. I say less than cost, because the passenger trains contribute almost nothing to the payment of interest and dividends.

It being granted that the movement of passengers and mail is the most important of the services rendered society by the railways, and as it must be conceded that they are carried at less than cost, Professor Adams must admit that the principle of public utility is now applied to railway charges. And consequently all that remains for discussion is the question whether or not the principle is applied with sufficient thoroughness. According to the limitations he has himself placed upon the application of his principle the limit has been passed, for he says the practical effect of the adoption of the principle of public utility would be that

¹ *Statistics of the Railways of the United States, 1898*, p. 93.

² The statement just made of the average cost of running trains does not include these items. It is thus misleading.

³ During the year 1898 the aggregate passenger train mileage was 341,526,769, and the aggregate freight train mileage 503,766,258. *Ibid.*, p. 69.

We have a right — the government has a right — to force the mail compensation rather low, provided it does not force it so low that the question of compensation ceases to be a question of compensation and becomes a question of taxation, and the most that statistics can do in this matter is to set up the broad mark between these two lines.¹

If it be granted that passenger train earnings should not be forced still lower than they are now, all that remains for discussion is the proportion in which the traffic moved on passenger trains should be made to contribute to the support of the passenger train service.

If the diffusion of intelligence and the movement of passengers are of about equal social importance, then, according to the principle of public utility, they should contribute in a like ratio to the maintenance of the passenger train service. If mail and passenger earnings do conform to this standard, then the present mail rates, whose fairness it is our object to test, do satisfy the requirements of reasonableness set up by the principle of public utility. How can it be ascertained whether this conformity exists? A comparison on the basis of weight is unsatisfactory, because (1) the weight of the passengers would have to be estimated and because (2) the dead weight hauled, that is, the weight of the cars cannot be assumed to be in proportion to the weight of the mail and passengers. The space basis cannot be accepted for the second of the reasons just stated. While being far from entirely satisfactory, probably a comparison based on the gross tonnage would come the nearest to satisfying all the requirements of a fair test. By gross tonnage I mean the weight of the car plus its contents, whatever they may be. Several of the witnesses who appeared before the commission submitted arguments based on this comparison. Their results may be found in brief compass in the subjoined table:

Year ending	System	Mail Pay per mile per gross ton	Passengers Pay per mile per gross ton
June 30, 1897 - -	Louisville and Nashville ²	Cents 0.610	Cents 0.685
June 30, 1898 - -	Southern Railway ³	0.745	0.581
June 30, 1897 - -	All the railways of the United States ⁴	0.632	0.700

¹ *Testimony, etc., 1899*, p. 10.

² *Senate Report No. 991*, p. 65, LV Congress, second session.

³ *Testimony, etc., 1898*, p. 942.

⁴ *Testimony, etc., 1899*, pp. 88, 89.

If the figures presented in this table are reliable it would have to be conceded that, on the basis we have accepted, the railways are not overpaid for carrying the mail. Mr. Stuart R. Knott, who presented the argument of the Louisville and Nashville Railroad Company, did not state how he obtained the gross tonnage hauled one mile. At another point in his argument he states that "the sixty-foot railway post-office cars, constructed in accordance with government requirements, weigh 89,000 pounds."¹ This may be true, but if he assumes that the average weight of the entire equipment of postal cars of the company he represented was 89,000 pounds, I should feel that he overstates the number of gross tons hauled one mile in the transportation of mail, for the old railway post-office cars do not weigh so much as the new ones. In fairness to the other railways of the United States it must be stated that conditions on the Southern railway are not typical. It is one of the very few systems of the country that receive the so-called special facility pay, and the mail for a very large portion of the South is concentrated on this line, as it has the only fast mail service in the South. Several postmasters-general in succession have refused to recommend this subsidy in their annual estimates, but one Congress after another has continued it by special appropriation. The average earnings per gross ton per mile for all the railways of the United States were taken from the second statement submitted to the postal commission by Mr. Julius Kruttschnitt, general manager of the Southern Pacific Company. His results cannot be accepted as conclusive, for they are in a measure based on estimates. It would have been much more satisfactory to have had from Mr. Kruttschnitt carefully compiled data for the Southern Pacific Company.

In view of the difficulties inherent in obtaining the gross ton mileage moved respectively in the mail and passenger business, I have been inclined to turn to car-mile and train-mile earnings for light on the reasonableness of the mail compensation. While these bases do not yield results that are wholly satisfactory, nevertheless, as railway records are now kept, they give better results than the method just presented.

In the following table the average earnings from mail and passengers per car per mile are submitted:

¹ *Senate Report No. 991*, p. 73, LV Congress, second session.

Year ending	System	Average earnings per mile of 60-foot mail cars	Average earnings per mile of all passenger cars
June 30, 1897	Chicago and North-Western ¹	Cents 21.66	Cents 21.83
June 30, 1897	Louisville and Nashville ²	18.79	20.06

The data for the North-Western, I have been assured, were very carefully collected. The total mileage of the mail cars could be ascertained with absolute accuracy, also the mileage of the apartment cars. As the length of the mail cars and the apartments devoted to mail were known, it was a mere matter of arithmetic to find out the equivalent mileage in terms of 60-foot cars. The space allotted to pouches had to be, in fact, estimated, but not in all cases, for on some of the through trains a fixed space is set apart for mail. No great error could be introduced because of the space assigned to pouches, for this space, reduced to car miles, amounted to but 5 per cent. of the total. It does not seem possible because the space allotted to pouches was estimated, an error was introduced into the table of 2 per cent. at the outside. The average car-mile earnings of the passenger cars has been recorded for some years, so there is probably no error at all in the statement of the earnings of the passenger equipment.

Unusual value attaches to this comparison of the mail and passenger earnings of the North-Western, because it is a large system, and has both light and heavy mail routes. That its mail earnings are typical is shown by the fact that while its average earnings per ton per mile for carrying the mail during 1897 were 12.68 cents, the average earnings for the whole country were 12.56 cents.³ The passenger earnings of this company are also fairly representative. During 1897 the average per mile earnings of passenger trains on the North-Western were 85.9 cents, and the average per mile earnings for the whole

¹ Computed from information given on pages 444 and 449 of *Testimony*, etc., 1898, and on pages 34 and 57 of the *Annual Report of the North-Western Railway for 1897*.

² *Senate Report No. 991*, p. 64, L.V Congress, second session.

³ For the average ton-mile earnings of the North-Western, see *Testimony taken by the Joint Congressional Commission on Postal Affairs in the Summer and Autumn of 1898*, p. 449, and for the average earnings of all the railways, see *Testimony*, etc., 1899, p. 45.

country were 93.9 cents.¹ It is to be noted that the average length of the passenger cars is not stated, but I believe it may be assumed that it is less, rather than more, than 60 feet. While the sleepers exceed 60 feet in length, the standard coaches of this company are but 54 feet in length, and the aggregate mileage of the latter is several times that of the former. In the matter of dead weight the mail cars also stand about midway between the coaches and sleepers, and therefore the dead weight of the equipment hauled in transporting mail and passengers can probably also be disregarded without fear of greatly impairing the accuracy of the results.

As Mr. Knott did not state fully how the average car-mile earnings of the Louisville and Nashville were obtained, judgment as to their reliability cannot be passed. But it is due to Mr. Knott to state that no criticism can be made of his methods so far as they are set forth in his argument. The possibility of introducing a small error into the car-mile earnings of mail he has avoided by allowing no space whatever for the carriage of mail in baggage cars in closed pouches. This space would of necessity have to be largely estimated. It is to be noted that he does not give the average length of the mail cars. It may be that the average length of the mail cars on the Louisville and Nashville is not equal to the average length of the baggage cars, coaches, diners and sleepers. On this point, however, I have no information.

Comparisons have now been made of mail and passenger earnings on the basis of the gross tonnage hauled in moving mail and passengers respectively and also on the basis of car-mile earnings. There is still one other comparison which I wish to introduce. Although it is of limited scope, it is nevertheless of great importance. It clearly shows (1) that there is still competition between railways, and (2) that although railways fiercely compete for the mail traffic, it does not follow, as has often been argued, that this business is profitable. As is well known the Burlington and the North-Western run fast-mail trains between Chicago and Council Bluffs. The Burlington carries the overland mail and has two fast-mail trains west bound and one east bound. As the Chicago-Council Bluffs route is the heaviest route this company has it would naturally be expected that these trains would yield a large revenue. The average train-mile earnings of these

¹ *Statistics of the Railways of the United States, 1897*, pp. 82 and 358.

mail trains and the average train-mile earnings of all the passenger trains of this system are set forth in the following table:¹

Designation of train.	Mail trains		Passenger trains
	System	Average earnings per train mile	
No. 15, west bound	Chicago, Burlington and Quincy Railroad Company	\$1.33	
No. 7, west bound		.82	
No. 8, east bound		.61	
			\$1.09

After the presentation of this table it scarcely needs to be said that the fast-mail trains of this system between Chicago and Council Bluffs cannot be a source of profit. The average speed of the fastest of these trains is higher than that of any other fast-mail train carrying transcontinental mail. The fast-mail trains between New York and Chicago, and Council Bluffs and San Francisco are slow trains compared with the trains of the Burlington.

V.

The fourth and last of Professor Adams's fundamental principles in accordance with which railroad rates should be adjusted reads as follows:

The possibility of introducing economies into the business of transportation depends upon the increase in the volume of traffic, from which, in the absence of countervailing considerations, it follows that a form of traffic which increases most rapidly through a series of years should show a relatively more rapid decrease in charges [charges] as compared with other traffic.²

It will be remembered that before Professor Adams presented his fundamental principles of rate-making he took the ground that the reasonableness of a rate could not be judged from the cost of service because it is impossible to ascertain the cost service. He also assumed, in substance at least, that even if it were possible to compute the cost of service it would not be advantageous to the public

¹The data from which the train-mile earnings of the mail trains were computed were obtained from Mr. E. L. West, superintendent of railway mail service. The earnings of passenger trains on the Burlington were obtained from the auditor of the Burlington, Mr. C. I. Sturgis. In train number 7, except on Tuesdays, there is an express car from Chicago to Union Pacific Transfer. Some of the mail cars hauled west loaded are returned empty.

²*Testimony, etc., 1899*, pp. 11 and 12.

to adjust rates on that basis. In other words, that the interests of the public would be best advanced by encouraging with low rates the movement of those commodities which in the largest measure promote social welfare and by discouraging by high rates the movement of such articles as are either of little value or are positively inimical to the interests of society. As I have before stated, Professor Adams has not presented his views perhaps as explicitly as they have just been set forth, but he is logically bound by his utterances to the propositions I have stated.

Professor Adams's fourth fundamental principle is not in harmony with his other fundamental principles. It was asserted that public utility should be the fundamental consideration in rate-making. This being true, I cannot understand why, as a broad proposition, rates on any particular commodity should be lowered just because the movement of that commodity has largely increased, thereby making possible the introduction of economies into the business of transportation. On the contrary, such an increased movement might be assigned as a sufficient reason for the rate being fixed higher. Whether the rate should go up or down would depend upon whether, after all things had been considered, the enlarged movement of the article under consideration would be the best for society. Concretely stated, there are probably few persons who would contend that railway rates on whisky should be lowered simply because at the prevailing rates the movement of this liquor had largely increased, thereby permitting of the introduction of economies in its transportation. It may be said that mail does not belong in the same class with the article just mentioned. To this I should reply that the assertion is true enough, but that Professor Adams undertook to state the broad principles in harmony with which rates should be adjusted.

GEORGE G. TUNELL.

CHICAGO.